CASE STUDY

SOCIETE GENERALE INSURANCE REDUCES APPLICATION TEST PHASE BY 93% USING ARCAD-VERIFIER REGRESSION TESTING

SOCIETE GENERALE
Insurance

The Customer

Societe Generale is the 3rd largest bank in France by total assets. The company's Insurance division has successfully grown to become one of the largest providers in the market. The division offers private consumers a diverse range of savings and pension products and its corporate clients bespoke liability protection insurance. ◆

The Problem

The quality assurance team at Societe Generale Insurance is responsible for validation of applications, including the IBM i application for managing savings contracts. In this context, drafting the QA plan for reception means considering new operational rules. Without tools for a long period, evaluating the impact of changes and verifying the absence of regressions meant a considerable and complex workload. In a search for solutions on the market and a comparison of several tools, Societe Generale Insurance selected ARCAD-Verifier, which best met its needs for regression testing in the scope of its IBM i applications. ◆

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Herve Marchand, IBM i Application Architect

The Solution

Right from the start of product operation, Societe Generale Insurance teams recorded significant gains. Hervé Marchand, IBM i Application Architect, remembers the optimization of a batch chain linking a range of programs taking several nights. The regression testing that once took fifteen days or more, now takes one day. "It was a ray of sunshine," said Hervé Marchand: **"The solution has really proven itself. It consistently demonstrates the quality that we expected out of a regression testing tool."**

This initial success was already significant. **"The real benefits from the suite were in time savings and productivity gains by the QA team,"** he adds. With about 4,000 tables, the Societe Generale Insurance development and test environment requires a vast volume of checks. Regression tests once took considerable time and energy and were never complete. Today ARCAD-Verifier ensures completeness with massive time savings and greatly improved productivity.

One particular strength of the tool led to these results: its ability to test data from files in batch mode. **"ARCAD-Verifier is connected to the database and intercepts access to records,"** says Hervé Marchand, **"Its main asset is that it reconstructs the data environment while automatically reinitializing the original data, which no other solution in the market can do."**

Since 2008, Societe Generale Insurance has used ARCAD-Verifier as part of a technical migration project impacting thousands of programs. Faced with fifty developers on average, a dozen QA personnel use it full time in parallel. They capture and replay regression-testing scenarios. It is a large-scale and intense workload.

"**ARCAD-Verifier brings very satisfactory comfort and security in 90% of cases,"** said Corinne Pouge, QA manager. The team created 1,500 testing scenarios, leading to significant time gains. With ARCAD-Verifier, the replay of 800 scenarios and review of results to identify errors now takes a week, where it had previously taken a month and a half without tools.

ARCAD SOFTWARE

An evolution of the tool produced in partnership between ARCAD Software and Societe Generale Insurance To adapt ARCAD-Verifier to the needs of Societe Generale Insurance, a partnership was established between the customer and vendor. Societe Generale Insurance's product constraints corresponded to changes that ARCAD Software was looking to make in the tool. It enabled, in particular, changing the philosophy of the tool and adapting it to users dedicated to the testing world who are not concerned with system-related aspects. Users have access to menu options, make captures during normal processing, and are shielded from the interactions of the tool with the system: ARCAD-Verifier automatically launches sophisticated system commands that are fully secure and transparent to users.

Societe Generale Insurance also had a more specific requirement: the ability to perform regression testing in a multi-environment context. Dynamic management of library names was implemented by means of the interception of access to libraries. Originally designed to manage testing of new deliveries, ARCADVerifier — which is logically connected to ARCAD-Skipper for version management — takes deliveries from the Societe Generale Insurance development team into account using a completely automated process.

However, the daily task of the Societe Generale Insurance QA team is different: the QA team may be required to test any existing version of programs.
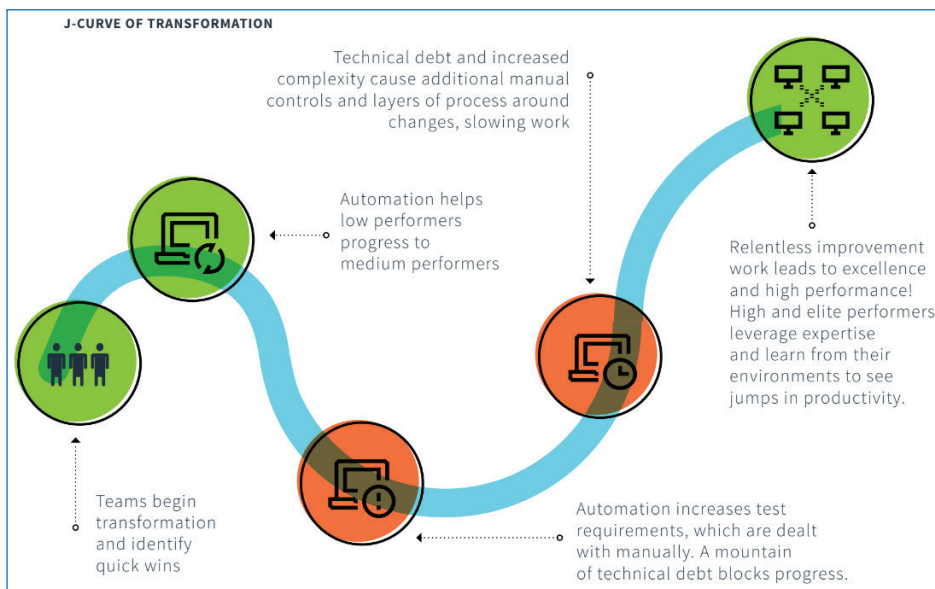
Therefore, scenario management was made even more flexible: testers can now write scenarios and play them immediately, both on a version n and on a version n +1.

Cases are reported systematically by the QA team, handled by the ARCAD software development team, and the vendor regularly issues optimizations that are steadily improving coverage rates. **"We greatly appreciate the close attention and responsiveness ARCAD Software provides to help meet our needs,"** said Hervé Marchand. **"ARCAD Software has taken into account the technical characteristics of our environment; it has incorporated new commands and has offered us many customizations."** ◆

Next Steps

Societe Generale Insurance are now looking to realize the benefits of regression testing automation across other platforms. Beyond the IBM i, ARCAD Software has expanded its product range to cover open systems. The same major gains in automation, data capture, and database comparison are available with its DOT-Verifier solution, compatible with multiple DBMS including Oracle. ◆

J-CURVE OF TRANSFORMATION

Technical debt and increased complexity cause additional manual controls and layers of process around changes, slowing work

Automation helps low performers progress to medium performers

Relentless improvement work leads to excellence and high performance! High and elite performers leverage expertise and learn from their environments to see jumps in productivity.

Teams begin transformation and identify quick wins

Automation increases test requirements, which are dealt with manually. A mountain of technical debt blocks progress.

Source: DORA 2018 State of DevOps Report

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